

rise to the ear; and this process is not stopped by cutting. If wheat stands until it is dead-ripe it gets thicker in the bran and rougher outside, and will acquire a great weight as well as measure if it could be all assured; but wheat when dead-ripe will shell both in cutting and removing, and the loss is probably as great in that way as the gain would be otherwise. On the other hand, the early cut grain has a fine, thin, glossy skin, weighs heavy in the bushel, and ought to fetch several shillings per quarter more than the dead-ripe corn, because it produces more flour in proportion to its weight by 7 or 8 per cent., and the quality of the flour is very superior.

In the next place, if there is any reason to apprehend a sickle or wet harvest, the best way of preserving the wheat from taking harm is the adoption of the French practice of tying a sufficient number of sheaves near the base, and then opening and placing them head downwards over the shocks. If this is done cleverly, whatever rain falls will run down the sides of the outer sheaves, or *moyettes*, as they are called in France, where this plan is almost universally adopted. The wheat-harvest in that country last year was very wet, but wherever the *moyettes* were used the grain was harvested in a perfectly dry and sound state, whilst where it was neglected considerable damage was sustained. It is surprising that the custom has not been more generally adopted in this country. We have seen, with deep regret, wheat standing on the shock in a wet time, week after week, without the slightest precaution being taken to guard against the weather, in consequence of which the grain has in some cases been sprouted to that degree as to give the shocks quite a green appearance.

In the third place, the proper time to cart wheat so as to avoid its heating is when the knots or joints of the straw yield no moisture when pressed with the thumb nail. If they do, it is a proof there is sufficient moisture in the straw still to cause it to heat on the stack, which will seriously injure the sale of the grain. Some farmers, in a "catchy time," pay little attention to this proof, under the idea that a little beating in the stack is better than having it sprouted on the shock—which is true enough; but the wisest plan will be to avoid both, by using the *moyette*, and availing yourself at leisure of the first fine day after the wheat is properly weathered, to cart it.—*Mark Lane Express.*

How to Set a Bar Post.

"ANY fool can do that," said neighbor Tucker, as I got the hole dug out to plant mine for the fifth time. "Just chuck your post into that 'ere hole, and pound the dirt in well, and it will stay till it rots. Dirt packs a great deal solidier than stone," said Tucker by way of a clincher.

"Not so fast, neighbour Tucker," said I. "There is gumption needed in setting a bar post as much as in setting a hen. I used to do it in your way until I found out a better. You see if you pack the dirt in solid there is no chance for the water to run off quick, and the soundest wood will rot off just below the surface of the ground in a very short time. I have had 'em spoiled in three years so that I had to put a new one at the other end. That bar post has been in service at least 35 years, and if you examine the wood, you will see it is about as sound where it has been under ground as it is above.

"I dig a good sized hole to begin with, and then put in a good sound post of chestnut or white oak stripped of the bark. The butt should be at least eighteen inches below the lower hole in order to hold well. I pack in around the post stones of any convenient size, and pound them in snug with a crowbar. This leaves room for the air to circulate all round the bottom part of the post, and it is kept about as dry as if it were above ground. A post set in this way is good for an ordinary life time. I have some posts of forty years standing, and they are good yet. The frost of course will move the stones, and they will need resetting occasionally, but no oftener than those packed in dirt."

"How much, do you suppose, you have saved by that operation," asked Tucker with a sneer.

"No contemptible sum," said I, as you can easily calculate. Bar posts set in dirt will last say five years; in stone forty. If they are worth \$2 a pair I save seven pairs in forty years, or fourteen dollars, not counting the interest for every bar way. I have forty on my farm, quite too many I admit, but that makes a saving of \$560, which is worth looking at."

It is by attention to small things that the farmer makes his money and his fortune. A penny saved is as good as a penny earned.

CONNECTICUT in *American Agriculturist.*

The Agriculture of the South of France.

These lands were, it may be, as richly and carefully tilled in the days of Augustus Caesar as they are now; or rather, as they were at the end of the eighteenth century. For since then, the deliver and sower—for centuries the slave of the Roman, and for centuries after, the slave of Teutonic and Saracenic conquerors—has become his own master and his own landlord; and an impulse has been given to industry which is shown by trim cottages, gay gardens, and fresh olive orchards, pushed up into glens which in a state of nature would starve a goat. The special culture of the country more and more special as we run eastward is that of the mulberry, the almond, and the olive. Along every hill-side, down every glen, lie orchard-rows of the precious pollards. The mulberries are of richest dark velvet green, the almonds, one glory of rose colour in early spring, are now of a paler and colder green; the olives (as all the world knows) of a dusky grey, which looks all the more desolate in the pruning time of early spring, half the boughs of the evergreen are cut out, leaving the trees stripped as by a tempest, and are carried home for fire-wood in the quaint little carts, with their solid creaking wheels, drawn by dove-coloured kine. Very ancient are some of these olives, or rather olive-groups. For when the tree grows old it splits and falls asunder, as do often our pollard willows; the bark heals over on the inside of each fragment, and what was one tree becomes many, springing from a single root, and bearing such signs of exceeding age that one can well believe the country tale, how in the olive grounds around Nismes are still fruiting olives which have furnished oil for the fair Roman dames who cooled themselves in the sacred fountain of Nemausa, in the days of the twelve Cæsars. Between the pollard rows are everywhere the rows of vines, or of what will be vine, when summer comes, but are now black knobbed gnarled clubs, without a sign of life save here and there one fat green shoot of leaf and tendrils bursting forth from the seemingly dead stick. One ought to look with something of filial reverence on the agriculture of the district into which we are penetrating, for it is the parent of our own. From hence, or strictly speaking from the Mediterranean shore beyond us, spread northward and westward through France, Belgium, and Britain all the tillage which we knew—at least, till a hundred years ago—beyond the primeval plan of clearing or surface burning the forests, growing miserable white crops as long as they would yield, and then letting the land relapse, for twenty years, into miserable pasture. This process (which lingered thirty years ago in remote parts of Devon), and nothing better seems to have been that change of cultivated lands which Tacitus ascribes to the ancient Germans. Rotation of crops, in any true sense, came to us from Provence and Languedoc; and with it subsoiling, irrigation, all our artificial grasses, with lucerne at the head of the list, our peas and beans, some of our most important roots, almost all our garden flowers, vegetables, fruits, the fig, the mulberry, the vine (the olive and the maize came with them from the East, but dared go no further north) and I know not what more, till we may say that (saving subsoil-draining, which their climate does not need) the ancestors of these good folks were better farmers fifteen hundred years ago than too many of our countrymen are at this day. *Rev. Charles Kingsley, in Good Works for July*

Urine as a Liquid Manure.

A WRITER, in the *Traveller's Chronicle*, finds urine a most valuable fertilizer, when used in the following manner. Human urine, free from other slops, is allowed to get quite stale, which in a moderate temperature it will do in about a week. In this condition it is strongly alkaline, and will turn red litmus paper blue. To the urine in this condition, sulphuric acid (oil of vitrol) is gradually added until it is slightly acid, which is known by its turning the blued litmus paper red again. The amount of acid required, is about two ounces to each gallon of urine. To neutralize any excess of acid, add about 2 ounces of ground chalk to the gallon. Of the liquid thus prepared, one pint, after stirring it thoroughly to diffuse the settlings, is diluted with one or two gallons of water, the latter proportion being strong enough for most plants, and applied at once. This manure has been found very serviceable on grass plots in England, and may be applied wherever guano or other ammoniacal manure would be admissible. The litmus paper is paper coloured with an infusion of litmus. It is blue or red, according as it has been subjected to the action of an acid or an alkali. The paper, or the litmus itself, may be had of any good druggist.

Results of Irrigation.

In connection with this subject, we take the following remarks on Wiltshire irrigation from the *Agricultural Gazette* of the 30th June.

Barring an occasional thunderstorm, we are enjoying a splendid haymaking time; and if anything can help the wheat crop over the disastrous effects of a wet March and April, it will be the extremely fine season during which it is now in bloom. The recent rains, after a cold dry May, have been welcome for all succulent growth. Grass and mangold-wurtzel and turnips have greatly benefited by them; and the effects of a few hundred tons per acre of water falling upon the laid bound soil illustrate and explain the results which all visitors to the recent show at Salisbury may have seen of the many thousand tons per acre which are poured over grass lands there during winter. We then saw a heavy crop ready to cut, equal in weight to the ordinary hay crop of a first-rate dry meadow, the land having already yielded a larger crop before to ewes and lambs, folded over it in April and May. Mr. Combes, of Tisbury, near Salisbury, who is the great authority on Wiltshire irrigation, informs us that a square hurdle—i.e., about 4 square yards—is the average daily allowance for a ewe and lamb, putting their consumption at 24 lb., we have a crop of upwards of 12 tons of grass per acre, and this is taken before the early June haymaking, which represents almost as much more. This is the result of an enormous flooding with water. It is the practice to lay on as much water as possible in a thin flowing sheet during November and December. The watering goes on more or less during winter, and even in the severest frosts the grass will grow under the ice. We are quoting Mr. Combes' statement. In January, as a general rule, it is held to be advisable to water five days in six—in February about three days in four, and at the beginning of March every other day. Consider what quantity this represents. When in full flow the water runs on at the rate of 2 or 3 tons per acre per minute, 150 tons an hour, 30,000 tons and more every day. No doubt enormous growths of grass, greater than any known in any ordinary water meadows, are obtained from 6,000 to 10,000 tons per acre yearly in the case of sewage water. The clear spring water, which is said to produce the best effect in Wiltshire, may be as pure as one can imagine it welling from the chalk, but 30,000 tons poured daily over every acre for nearly 100 days must contain more food for plants than even 10,000 tons of sewage per annum—food enough to account for the luxuriant growth it produces, however small the per-centage of food for plants it may contain.

Mr. Combes has ascertained by repeated cuttings and weighings that the total growth of grass during the year in a well-managed water meadow may be as much as 40 tons per acre. This was taken by frequent mowings throughout twelve months; but the ordinary practice is to feed off in April and early May, to mow in the middle of June, in some cases to take a second crop for hay in August, and thereafter to graze with cattle and horses, keeping the land perfectly dry during autumn, and feeding it bare, before the first November flooding. The four streams which meet near Salisbury are utilized in this way over about 9,000 acres of land, and probably 300,000 to 400,000 tons of grass are thus produced, worth £200,000, or upwards of £20 per acre to the occupiers, and enabling a most advantageous management of the farms to which they belong. According to Mr. Combes, the spring grass of a 20-acre meadow, fed with sheep, will keep 400 couples during seven weeks in April and May. During this time this stock is used to fold 15 to 20 acres of arable land. This meadow will then in two cuttings give at least 60 tons of hay; and thus there is annually put on the arable land 15 acres of spring folding and 60 tons or more of hay, thus enabling the farmer to dispense with the growing of 20 acres of turnips and 25 acres or more of field grass, or to increase the number of his sheep stock on a farm of 400 or 500 acres at least 12 per cent. In one instance given by Mr. Combes, 277 couples were kept 33 days and 11 cows 26 days with less than 10 lb. of hay per day per cow, on a meadow of 13½ acres, after which there was cut from the same meadow at least 2 tons per acre, the aftermath being fed by cows and horses."

SONGO SUGAR.—A Lebanon (Ohio) paper says:—"The question, 'Can sugar be made from sorghum?' has been answered by the Shakers at Union Village. They have a method of their own discovery, by which they make sugar from the pure sorghum material. We have seen a specimen. It is very dark, exceedingly coarse-grained, and has the real sorghum taste, but it is thoroughly dry, and is indeed sugar. They have not brought their method to perfection, but they expect in a short time to be able to make a good article."